THE FORREST C. LATTNER FOUNDATION
2006 GRANT REQUEST

1. Organization Name **WATER Center**
   Address 101 E. Pawnee
   City, State, Zip Wichita, KS 67217
   Phone # 316-337-9262 Fax # 316-337-9266
   E-mail lalbers@wichita.gov

2. Project Manager D. Kay Johnson, Director, Department of Environmental Services
   Contact Person/Title Libby Albers, Environmental Specialist

3a. **History of the Organization**

For decades, business, industrial and commercial activities thrived in and around downtown Wichita, Kansas. In the late 1980's, routine testing of the groundwater detected contamination in the vicinity of the downtown area. The impacted site, named "Gilbert-Mosley," includes approximately 3850 acres or 8,000 parcels of property. Preliminary tests found the primary contaminants to be chlorinated solvents. Wichita's groundwater was contaminated as a result of historical industrial activities in the area. The City chose an unprecedented approach and took the initiative on the clean-up project. Success associated with the Gilbert-Mosley model has encouraged Wichita to tackle even more complex groundwater contamination districts. "In turn, EPA has demonstrated receptivity to local government solutions…providing evidence that EPA is increasingly supportive of local solutions for reaching national environmental objectives" (Glaser, 1997).

The Wichita Area Treatment, Education & Remediation (WATER) Center, the complex housing the treatment system and education center, is located in south Wichita's Herman Hill Park. This remediation system consists of five and one-half miles of conveyance piping and thirteen groundwater extraction wells operating to limit the spread of contaminated groundwater. After treatment, the water passes through a highly architectural plaza filled with fountains. From the fountains the water is pumped to an 11,000-gallon outdoor aquarium that showcases native fish and expresses the life-supporting qualities of clean water. The water then meanders through an artificial creek before rejoining the Arkansas River. Other reuse opportunities at the WATER Center include park-wide irrigation and a water-truck filling station for use by the municipal park department. The facility is designed to encourage public interest and observation on how groundwater is remediated (cleaned) by including an education building and displays, aquaria and outdoor water features and other amenities.

One of the goals of the WATER Center is to educate the public on water-related issues with the intent of preventing other pollution districts like Gilbert-Mosley. The Center is designed not only to spark discussion on groundwater pollution but also initiate dialogue on non-point source pollution, wetland filtration, geology, aquatic biology, threatened and endangered species, invasive species, and xeriscaping. Visual art, poetry, and architecture also play a significant educational role at the Center.

As of March 2006, the WATER Center has established a quarterly newsletter, programs specifically directed toward active senior citizens, after-school programs, story hours, and a youth volunteer program. Many neighborhood associations and civic groups have used the classroom at the WATER Center to conduct meetings, trainings, and neighborhood awareness sessions. Groups that may not have visited south Wichita are now touring the park and the project. Visitors from Missouri, Hawaii, Mexico, and France have all participated in tours and programs held at the facility.

In 2005, staff efforts concentrated on educational programming, visitor services, building operation, educational fundraising, regulatory reporting, and field sampling. The following totals reflect the educational impact since opening in October 2003.

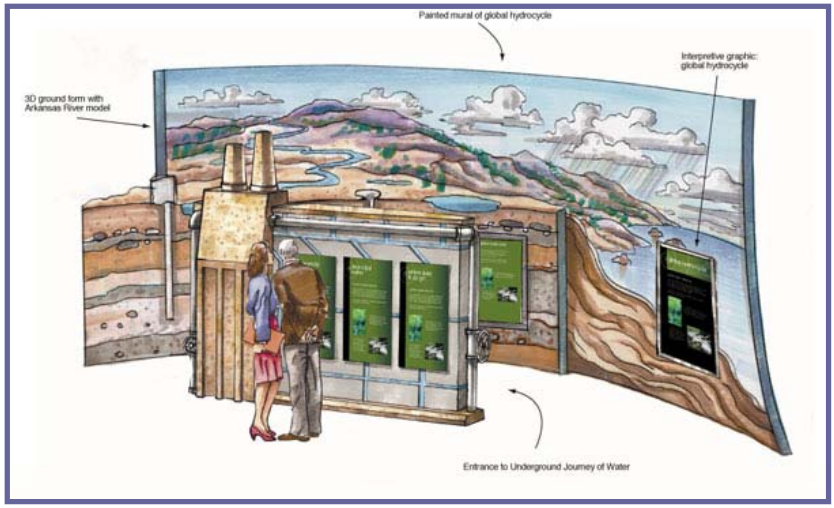
WATER Center 2003-2005 IN REVIEW	2003	2004	2005
Total visitation (program attendance + walk-ins)	**1481**	**4638**	**6012**
Attendance of programs and activities	1159	4422	5235
Number of people using checkout items	322	510	355
General facility visitors	322	985	777
Attendance of offsite booths or exhibits	12,234	16,000	14,640

3b. **Mission Statement and Grant Request**

The WATER Center: Remediating the Past, Educating for the Future

The WATER Center's objective is to demonstrate the hydrological and geo-physical processes involved in groundwater remediation; to provide education concerning groundwater, environmental threats and public health problems posed by water pollution; to illustrate the inter-relationship between the groundwater and the Arkansas River; and to provide an opportunity to experience and appreciate the power, beauty and importance of a natural resource: water.

The WATER Center has completed conceptual designs for thirteen hands-on water education exhibits that will teach the public basic water principles plus the specifics of water pollution and conservation. Visitors will journey through the anatomy of a water molecule, the water cycle, pollution, conservation and stewardship displays. Enclosed with this request is Taylor Studio's descriptive vision for the exhibit space titled, "*Captive Flow, The Endless Journey of Water.*"



Based on the Forrest C. Lattner Foundation's commitment to Wichita's youth, environment, and the arts, the WATER Center is requesting financial assistance to support the construction of the hands-on exhibits.

Although the Gilbert-Mosley Tax Increment Finance (TIF) District pays

for the maintenance of both the treatment and education buildings, little funding ($2,000) is available for the many educational programs provided by the WATER Center.

The Center continually seeks grants and donations for both the exhibit installation and for programming costs. In 2006, the WATER Center received $2,000 from the Kansas Health Foundation to cover the Senior Wednesday Program costs for the year.

Unsuccessfully, the WATER Center has repeatedly attempted to acquire City funding for the museum exhibits. Each year there have been a number of critical city-funded programs that have, rightfully, been selected ahead of the Center's desires. It will be the generous donations of local sponsors and grant awards that will see the "*Captive Flow*" exhibition to completion.

Thank you for carefully considering this funding request.

4a. **Supplemental Information:**

Board of Trustees

Currently, a Board of Trustees does not dictate the direction of the WATER Center, rather it is directed by the Department of Environmental Services and by the City Council. The City of Wichita is a unit of local government, designated as a city of the first class (having a population greater than 150,000) by Kansas's statutes. Wichita is located in Sedgwick County, Kansas, and is the largest city in the State of Kansas with a population of 330,000 and a metropolitan area with a population of 452,869. The City governance is a Council-manager form of government with six Council Districts and a Mayor at large. The Mayor and a six-member Council serve as the policy making body for the City and appoints the City Manager who serves as the chief executive. The City of Wichita has seventeen departments and administers two City-County departments including Planning, and Flood Control under an inter-local agreement with Sedgwick County. The City of Wichita has approximately 2,500 employees.

All can be reached at: *City Hall, 1st Floor* *City Council, MS 1-135* *455 N. Main* *Wichita, KS 67202*	George R. Kolb City Manager City of Wichita	D. Kay Johnson Director Department of Environmental Services
	Carlos Mayans City Mayor	Carl Brewer City Council District 1
Sue Schlapp City Council District 2	Jim Skelton City Council District 3	Paul Gray City Council District 4
Bob Martz City Council District 5	Sharon Fearey City Council District 6	

Total WATER Center Staff:	**Full Time 2**	**Part Time 0**
Date Fiscal Year Begins:	**January 1**	
Full-Time: Compensation Package Year Joined WATER Center	Libby Albers $70,000 *(currently paid from City's General Fund)* 2003	
Full-Time: Compensation Package Year Joined WATER Center	Kay Drennen $70,000 *(currently paid from City's Water Utility Fund)* mid-year, 2005	

4b. **Federal Tax Determination Letter:** (See attached)

5. **Expenditure Information**

Organization Name: WATER Center Education Center
Project Name: Education Exhibition: *"Captive Flow, The Endless Journey of Water"*

2005 - ITEM	TOTAL	OUTSIDE FUNDING	CITY FUNDING	SOURCE
Income				
Used for operation and maintenance of the building	$ 64,008	0	$ 64,008	Gilbert-Mosley TIF
Used for salary and computer fees	$ 70,000	0	$ 70,000	City's General Fund: Environmental Assessment & Remediation
Saved for use on exhibits	$ 935	$ 935	0	Donations
Deposited back into the TIF	$ 21	$ 21	0	Vending Revenue
Total Income: WATER Center Education Facility	$134,964	$956	$134,008	
Management and General Expenses				
Janitorial for Education Facility	$ 1,814	0	$ 1,814	Gilbert-Mosley TIF
Utilities	$ 12,825	0	$ 12,825	Gilbert-Mosley TIF
Grounds Maintenance	$ 720	0	$ 720	Gilbert-Mosley TIF
Printing, Copying, Postage	$ 7,900	0	$ 7,900	Gilbert-Mosley TIF
Contracted Repairs	$ 26,000	0	$ 26,000	Gilbert-Mosley TIF
Computer/IT	$ 4,789	0	$ 4,789	Gilbert-Mosley TIF
Phone/FAX	$ 6,960	0	$ 6,960	Gilbert-Mosley TIF
Office Supplies	$ 1,000	0	$ 1,000	Gilbert-Mosley TIF
Education Program Supplies	$ 2,000	0	$ 2,000	Gilbert-Mosley TIF
Fundraising Expenses (approximate)				
Performed as part of staff duties – this figure is included in salary	$ 5,000	0	$ 5,000	City's General Fund: Environmental Assessment & Remediation
Highest Paid Employee & Position				
Salary: Libby Albers, Environmental Specialist	$ 50,000	0	$ 50,000	City's General Fund: Environmental Assessment & Remediation
Benefits	$ 20,000	0	$ 20,000	City's General Fund: Environmental Assessment & Remediation
Total Expenses: WATER Center Education Facility	$134,008	0	$ 134,008	
Total 2005 Budget: WATER Center Education Facility	$134,008	0	$134,008	
Current Funds Available for Captive Flow Exhibit Installation	$ 4,270	$ 4,270	0	
Total Grant Request: $ 25,000				

Number of Volunteers (2005): **8 volunteers**
Hours Contributed (2005): **276 hours**

6. **Amount requested**

Total WATER Center Budget: $134,008
Total *Captive Flow* Project Cost: $594,000
Amount Requested: $ 25,000

Project Name: "Captive Flow: The Endless Journey of Water"

The conceptual designs for the exhibits were completed in 2002, however no City funding has been available for the final design, construction, or installation. Below is a cost breakdown of twelve unfunded exhibits based on the projections from the exhibit designer, Taylor Studios Inc.

Description of Exhibits	Bid Price
Introduction Panel	$ 15,000
Three Forms of Water	$ 50,000
Opposites Attract	$ 20,000
Global Hydrocycle	$ 30,000
A Journey Underground	$ 35,000
A Journey Underground: A Closer Look	$ 42,000
Groundwater Contamination	$ 15,000
How Do You Use Water	$ 38,000
Commercial Water Uses	$ 29,000
Gilbert-Mosley Project	$ 90,000
Protecting the Water	$ 23,000
Aquarium Panel	$ 7,000
Final Design	$ 75,000
Final Graphic Design, Photographs and Illustrations	$ 35,000
Project Mgmt., Admin., Samples, Miscellaneous	$ 30,000
Shipping & Handling, Installation and Install Expenses	$ 60,000
Total	**$594,000**

The WATER Center expects that, as the permanent exhibits are installed, services and visitation will increase. Currently, the exhibit hall has a few temporary displays designed to help promote its mission. Visitors have been overwhelmingly supportive of the WATER Center's efforts and are excited that a facility of this magnitude and foresight would be placed in an economically and environmentally challenged portion of the city.

The *Captive Flow* exhibition will disseminate water quality information in an effort to improve public exposure to and increase adoption of water conservation and pollution prevention methods. Informal Science Education (ISE) occurs in unique learning environments that increase appreciation and understanding of science, mathematics, and technology through voluntary and often self-directed experiences for individuals of all ages and backgrounds (Texas, 1999). Specifically, visitors who experience the unique learning environment of the WATER Center should leave with the appreciation that water is a finite substance that is recycled through natural systems over time. Visitors should also understand pollution pathways and be able to employ effective pollution prevention and water conservation measures.

Most notably, the WATER Center will be able to quantitatively measure the public's increased exposure to water quality information when touring the *Captive Flow* exhibition based attendance. Since opening in October of 2003, the Center has provided educational programming and tours to 15,576 visitors. Currently, the primary users are conservation-oriented groups, school groups, and other adult civic organizations that have prescheduled a tour of the facility. On occasion, the future exhibition space has doubled as an additional classroom for these activities. The delivery method of the

The National Science Foundation Advisory Committee for Environmental Research and Education (NSF AC-ERE) stresses that "water is part of a complex system in which interactions between natural and human-designed components are dynamic, complex, and interconnected. Yet seeking understanding is critical because water not only supports life, but shapes the landscape, drives global climate systems, and influences where and how people live" (NSF AC-ERE, 2005).

WATER Center's educational component has been designed similarly to that of our local nature center, the Great Plains Nature Center. Once their exhibits and displays were installed in August of 2000, the Nature Center was able to reach 65,000 visitors a year with both interpretive educational programming and museum attendance. In subsequent years, while their educational programming attendance remained stable, the Nature Center's museum visitation dropped by 8% until stabilizing in the second full year of operation. Our objective is to teach a proportionately similar number of visitors the pollution prevention, water conservation, and environmental stewardship message. In the interim, the WATER Center's exhibit hall has a few temporary displays designed to promote water quality understanding and interest in science and the environment. Many people with science related careers credit their initial interest in science to informal rather than formal exposure, identifying museums and science centers as the most important stimulants to their childhood interest (NSF, 1997).

Qualitatively, the long-term, intended impact for the *Captive Flow* project is to break down misconceptions and increase pollution prevention and water conservation awareness. Based on an assessment by Falk and Dierking (1997), school aged children were able to remember events or details of school field trips well into adulthood. This memory was credited as "learning" from the field trip experience. Thus, the learning of conservation practices by students may be difficult to immediately assess, as results of the effort may take many years to manifest.

Works Cited

Texas Statewide Systemic Initiative, Informal Science Education Association. (1999). "Texas Informal Science: Guidelines for Supporting the Improvement of Science, Mathematics, and Technology Education in Texas." University of Texas at Austin.

National Science Foundation. 1997. "Foundations: The Challenges and Promises of K-12 Science Education Reform." Published by the Division of Elementary, Secondary and Informal Education. NSF 97-76.

Falk, J., & Dierking, L. 1997. "School Field Trip: Assessing Their Long-Term Impact." Curator, 40(3), 211-218

National Science Foundation Advisory Committee for Environmental Research and Education. 2005. "Complex Environmental Systems: Pathways to the Future."

Glaser, M., Cherches, C., & Brown, J. 1997, "Rx for the Ills of Superfund: Cost-Effective Solutions, Appropriate Financing and EPA Responsiveness." Municipal Finance Journal, 18:3 pp. 67-83.

Taylor Studios Inc. 2003. "Conceptual Exhibit Design for the Gilbert-Mosley Project"

7. **Last Year's Financial Statement**
Financial Statements for 2004

The WATER Center does not receive a "statement" for a bank or any other entity due to its government affiliation. Its monetary support is a part of the City-approved budget. The following table is a summary of the financial activities of 2005.

WATER Center

	Approved Budget 12/31/2005	Approved Budget 12/31/2004	Approved Budget: 12/31/2003	Approved Budget: 12/31/2002
IN-KIND SUPPORT				
City General Funds (Staff)	70,000	67,400	30,000	6,021
TIF District (Data Center Charges)	0	4,100	4,100	0
TIF District (Telephone)	0	0	1,646	0
Park Maintenance	15,690	15,690	3,200	0
OPERATING REVENUE	0			
Previous Years' Contributions for Exhibits	3,335	501	250	0
Contributions for Exhibits	835	2,770	240	250
Walk-In Donations	100	64	11	0
Room Rental	0	0	0	0
Grants	0	0	17,374	3,852
Gilbert-Mosley TIF	64,008	27,333	1,986	0
North Industrial Corridor TIF	0	760	0	0
Total Operating Revenue	**153,968**	**118,607**	**58,807**	**10,123**
OPERATING EXPENSES				
Salary & Benefits	70,000	67,400	30,000	6,021
Janitorial	1,814	1,105	0	0
Maintenance – grounds	720	1,225	0	0
Park Maintenance	15,690	15,690	3,200	0
Education Equipment	2,000	1,658	1,702	0
Supplies	1,000	503	284	0
Printing & Copying	7,500	558	0	0
Data Center Charges	4,789	4,100	4,100	0
Audio Visual Equipment	0	760	0	0
Telephone	6,960	689	1,646	0
Postage	400	270	0	0
Utilities – Gas	3,000	3,000	0	0
Utilities – Electricity	9,000	9,105	0	0
Utilities – Water	825	720	0	0
Exhibit Construction	0	0	17,374	3,852
General Repairs and Maintenance	26,000	8,500	0	0
Total Operating Expenses	**149,698**	**115,283**	**58,306**	**3,852**
NET OPERATING INCOME (LOSS)	**4,270**	**3,335**	**501**	**250**

8. **National Organization**
The WATER Center is not a national organization.